

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 are pending, with Claims 2 and 11-20 amended by the present amendment.

In the Official Action, Claim 20 was rejected under 35 U.S.C. § 112, second paragraph; Claims 11-19 were rejected under 35 U.S.C. § 101; and Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Natarajan et al. (U.S. Patent No. 6,505,244, hereinafter Natarajan) in view of Evans (U.S. Patent No. 5,694,524) and Yates et al. (U.S. Patent No. 6,330,586, hereinafter Yates).

Applicants first submit that the Official Action is inaccurate with respect to the status of the claims in that it appears that Evans is only relied upon to support a rejection of Claims 3 and 15. Thus, it appears that Claims 1-2, 4-14 and 16-20 are, in fact, rejected under 35 U.S.C. § 103(a) as being unpatentable over Natarajan and Yates. Applicants request clarification of the status of the claims in any future Official Action.

Claims 11-20 are amended in response to the rejections under 35 U.S.C. § 112, second paragraph. Claim 2 is amended to correct a typographical error.

Regarding the 35 U.S.C. § 101 rejection, Claims 11-20 have been amended to define a computer program product including a computer readable medium storing computer codes for causing a computer to control an image pickup apparatus. MPEP 2106 IV.B.1(a) states that:

A claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

In view of the presently submitted claim amendments and foregoing comments Applicant respectfully submits that Claims 11-20 define statutory subject matter. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 101 be withdrawn.

The amendments to Claims 2 and 11-20 place the application in better condition for appeal by materially reducing matters for appeal. Applicants submit that the present amendment does not raise a new issue requiring further search and/or consideration. Thus, Applicants respectfully request that the present amendment be entered.

Briefly recapitulating, Claim 1 is directed to

A method for modeling video teleconferencing network reliability, the method comprising:
obtaining historical data *for multiple video conferences*;
storing said historical data in a call history table, said *historical data referenced to video teleconferencing equipment vendor or model identification information*;
executing a modeling algorithm that produces *a model representing the historical data*;
analyzing the model to *identify characteristics associated with undesirable outcomes* for the video conferences; and
configuring a video teleconferencing network to avoid at least one of the identified characteristics associated with undesirable outcomes.

Claim 11 is directed to a computer storage medium storing instructions configured to cause a computing device to execute the method of Claim 1.

Natarajan describes a method and device for implementing a feedback based data network which is able to automatically and dynamically monitor characteristics of various aspects of the network and to adapt to changing network conditions by dynamically and automatically modifying selected network parameters in order to achieve a desired performance level.¹ Network elements of Natarajan are interconnected so that control actions performed on one network element can affect other network elements. Natarajan discloses a network model which is able to accommodate the multivariable nature of networks and to

¹ Natarajan, column 2, lines 15-22.

implement a control scheme wherein information from at least a portion of the related network elements is collected before a management or control decision is made at a particular network element.²

The feedback based adaptive network of Natarajan uses a technique wherein at least a portion of the network elements report network information related to network conditions to a centralized storage entity 252. The reported data corresponds to information relating to the *current* conditions or status of each of the reporting network elements in the network. The information reported to data store 252 is analyzed by a policy engine 254. The policy engine 254 includes a plurality of application specific plug-in policies for analyzing application specific information, and for computing updated control information based on the analysis of the information. The updated control information may include information, parameters and/or actions which may be used to affect the operation of one or more network elements. The updated control information is then fed back to selected network elements to thereby affect operation of the selected elements and/or network. Changed operating parameters are reported to the data store 252 and analyzed by policy engine 254. Policy engine 254 may generate new or updated control information thereby providing a dynamic feedback mechanism to automatically reconfigure the network and to cause the network to conform with desired performance criteria.³

Natarajan provides an illustrative example in Figures 16-18. Figure 17 shows a flow diagram for how the feedback base network of Figure 16 adapts to change conditions in the network as a video conference is initiated between user 1 and user 2. A video conference between user 1 and user 2 is one example of a user application which may require additional bandwidth in order to provide a satisfactory level of quality. When the video conference is initiated (1702), the network responds by initiating one or more bandwidth policies at the

² Natarajan, column 6, lines 49-65.

³ Natarajan, column 7, lines 11-43.

policy engine 1654, and may respond by initiating one or more policy/procedures at the monitor system 1662. As network conditions change, device parameters are updated.⁴

As acknowledged by the Official Action, Natarajan does not disclose or suggest historical data *referenced to video teleconferencing equipment vendor or model identification information*. To cure this deficiency, the Official Action applies Yates.

The background art section of Yates describes that it is known to use artificial intelligence within expert systems to generate classification rules applicable to a domain. In an example system, training examples (data sets which include values for each of a plurality of attributes generally relevant to medical diagnosis) are presented to the system for classification within one of a predetermined number of classes. The expert system compares a training example with one or more exemplars stored for each of the classes and uses a set of classification rules developed by the system to determine the class to which the training example most likely belongs.⁵

Applicants submit that, contrary to the Official Action, the cited portions of Yates do not disclose or suggest Applicants' claimed historical data *referenced to video teleconferencing equipment vendor or model identification information*. The cited portion of Yates merely describes a software module that may be an object. Yates describes that the behavior of the object is controlled by the use of rules expressed as policies. Among the benefits of certain access arrangements are the following: single contact point for services from different vendors; easy invocation and use of services from *different vendors*; consistent presentation of services across *different vendors*; and integrated accounting and charging for a service set supplied by local vendors.⁶

Applicants submit that translating vendor-specific operating instructions into vendor-neutral representations is not equivalent to Applicants' claimed historical data *referenced to*

⁴ Natarajan column 29, line 38 through column 30, line 66.

⁵ Evans, column 1, lines 51-67.

⁶ Yates, column 5, line 40 through column 6, line 8.

video teleconferencing equipment vendor or model identification information. First, Yates does not explicitly state that historical information is used in the software objects created therein. Thus, it appears that the Official Action includes an unwritten assertion that Applicants' claimed historical data ***referenced to video teleconferencing equipment vendor or model identification information*** is inherent in the object-oriented software of Yates. Applicants traverse any such finding of inherency because the rejection fails to show "that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art"⁷

The Official Action provides no rationale for any finding of inherency. "The fact that a certain result may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic."⁸ "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'"⁹ Because the Official Action provides no explanation of why Applicants' claimed features are inherent, Applicants submit the rejection is improper.¹⁰ Applicants submit that information needed to translate between vendor-specific and vendor-generic representations does not inherently include historical information vendor information as there is no inherent need for such information.

Elsewhere, Yates notes that specific access arrangements supplied by the retailer can confer a number of capabilities for the benefit of users. These capabilities enable the user to:

⁷See MPEP 2112 (emphasis in original) (citation omitted). See also same section stating that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic," (emphasis in original). See also In re Robertson, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) ("[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill,'" citing Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); and "[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient," Id. at 1269 (citation omitted)).

⁸ In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1995, 1957 (Fed. Cir. 1993).

⁹ In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

¹⁰ MPEP § 2112, IV "Examiner must provide rationale or evidence tending to show inherency."

- enquire of the retailer the range and specifications of services sold;
- negotiate a subscription to a service for the benefit of end-users;
- view current details of existing service subscription such as usage permissions;
- view **historical** details of existing subscriptions such as usage history and accrued charges;
- enter a financial transaction to pay subscription accounts;
- request assistance on any aspect of the retail environment; supply their identity and undergo authentication procedure;
- view and change their personal customization preferences for each subscribed service.

Yates also discloses that a user session maintains state about a user's activities and the resources allocated for their involvement in a service session. Examples of state held in a user session include the user's accumulated charge, suspension and resumption **history**, and service specific state such as the current page being edited in a distributed document editing service, for example. When a user joins a service session, a user session is created. It is deleted when he leaves. The service session maintains links to the user sessions and thus provides a group oriented view. A view facility confers advantages to the user by showing information such as capabilities and constraints of the services which they can use; for example restricted film categories in a video on demand service, view **service history**, such as usage record and accrued charges (i.e., view charges). Elsewhere, Yates describes viewing a **history** of service usage. However, none of these references to historical data includes a description of historical data **referenced to video teleconferencing equipment vendor or model identification information**. Instead, this historical information appears to be referenced to a user and/or a session, not a vendor.

Furthermore, contrary to the Official Action, Natarajan does not disclose or suggest "obtaining historical data [**referenced to video teleconferencing equipment vendor or model identification information**] for multiple video conferences and then "executing a modeling algorithm that produces **a model representing the historical data [referenced to video teleconferencing equipment vendor or model identification information]**". Paragraph 8 of the Official Action asserts that, apart from Applicants' Background discussion, there is no

description on how the vendor and model information is used in Applicants' claimed invention. First, Applicants interpret this portion of the Official Action as conceding that both Natarajan and Yates fails to disclose historical data *referenced to video teleconferencing equipment vendor or model identification information*. Furthermore, the assertion is incorrect, at least in view of the example described on page 10, lines 15-26 of the Official Action. Here, Applicants describe that

Once an acceptable model 106 has been generated, the process passes from block 220 to block 230, which shows an administrator determining whether the results of the modeling operations identify a specific problem in video network 10. For example, with reference to FIG. 4, the results of the modeling operations may include rule set 108, and rule set 108 may indicate that certain combinations of attributes frequently lead to technical difficulties in video calls. For instance, Rule 1 in FIG. 4 indicates that *when the To-Model is a Q-36 endpoint* and an MCU is used for the video call, technical difficulties are experienced 70.7% of the time. Rule 2 indicates that *when the vendor of the originating endpoint is VTEL and the vendor of the destination endpoint is Illudium*, 63% of calls have been unsuccessful. Rules 1 and 2 thus identify characteristics associated with undesirable outcomes (i.e., problems) in video network 10.

Thus, contrary to the Official Action, the specification does provide a description on how the vendor and model information is used in Applicants' claimed invention. No equivalent use of vendor information is described in any of the applied references. That is, none of the applied references describe "obtaining historical data [*referenced to video teleconferencing equipment vendor or model identification information*] for multiple video conferences and then "executing a modeling algorithm that produces *a model representing the historical data* [*referenced to video teleconferencing equipment vendor or model identification information*].

As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claims 1 and 11, Applicants submit the inventions defined by

Claims 1 and 11, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.¹¹

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

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¹¹ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations.